I C O D

ICOD Project Summaries by Region
(March 1991 Edition)

International Centre for Ocean Development
Centre international d'exploitation des océans

Canada

Acronyms and Abbreviations

BIEF	Banque internationale d'information sur les états francophones
CARICOM	Caribbean Community
CBRST	Centre béninois de la recherche scientifique et technique
CCA	Caribbean Conservation Association
CCIFTD	Canadian Centre for International Fisheries Training and Development
CCO	Canadian Cooperation Office (South Pacific)
CEAO	Communauté économique de l'Afrique de l'Ouest
CEHI	Caribbean Environmental Health Institute
CERMES	Centre for Resource Management and Environmental Studies
CFTDI	Caribbean Fisheries Training and Development Institute
CIDA	Canadian International Development Agency
CIFAD	Comité international des femmes africaines pour le développement
CNROP	Centre national de recherches océanographiques et des pêches
COPACE	Comité des pêches pour l'Atlantique Centre-Est
CRODT	Centre de recherches océanographiques de Dakar-Thiaroye
CSPOD	Canada-South Pacific Ocean Development (Program)
CUSO	Canadian University Services Overseas
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organization (United Nations)
FFA	(South Pacific) Forum Fisheries Agency
ICOD	International Centre for Ocean Development
IDRC	International Development Research Centre
IMLI	International Maritime Law Institute
IMR	Institute of Marine Resources
IMS	Institute of Marine Sciences
IOC	Intergovernmental Oceanographic Commission (UNESCO)
IOC	Indian Ocean Commission
IOI	International Ocean Institute (Dalhousie University, Halifax, Nova Scotia)
IOMAC	Indian Ocean Marine Affairs Cooperation
ISPM	Institut scientifique des pêches maritimes (Morocco)
ISSTH	Institut supérieur des sciences et techniques halieutiques
NARA	National Aquatic Resources Agency
OECS	Organisation of Eastern Caribbean States
OIC	Oceans Institute of Canada (Dalhousie University, Halifax, Nova Scotia)
OMSTEP	Organizaçao da Mulhiere de Sao Tomé e Principe (Women's Organization of Sao Tomé and Principe)
ORMP	Ocean Resources Management Project
PIMRIS	Pacific Islands Marine Resources Information System
SEAPOL	Southeast Asian Project on Ocean Law, Policy, and Management
SOPAC	South Pacific Applied Geoscience Commission (formerly the Committee for Coordination of Joint Prospecting for Mineral Resources in South Pacific Offshore Areas (CCOP/SOPAC))
SPC	South Pacific Commission
SPREP	South Pacific Regional Environmental Programme
UFSH	Unité de formation supérieure halieutique
UN	United Nations
UNCLOS III	Third United Nations Conference on the Law of the Sea
UNDP	United Nations Development Programme
UNEP	United Nations Environment Programme
UNIFEM	United Nations Development Fund for Women
UPNG	University of Papua New Guinea
UQAR	Université du Québec à Rimouski
USP	University of the South Pacific
UWI	University of the West Indies
WMU	World Maritime University

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User's Guide

"ICOD Project Summaries by Region" is published periodically to provide current descriptions of the projects supported by the International Centre for Ocean Development (ICOD). This edition includes all projects approved as of January 31, 1991.

Four Geographical Regions

The projects are grouped according to the four geographical regions in which ICOD focuses its assistance: the Caribbean Basin, the South Pacific, the South and West Indian Ocean, and West Africa. Projects which have a broader or general application are listed under the heading "Global Projects."

Seven Sectoral Themes

ICOD's projects are further categorized as belonging to one of the following seven major themes or sectors of ocean development:

AA (1) integrated ocean management and development
DA (2) fisheries management and development
JA (3) mariculture
KA (4) coastal development and management
LA (5) nonliving resource management and development
MA (6) marine transportation and ports management
NA (7) marine environmental conservation

The code identifying the relevant theme immediately follows each project number (e.g., 860057AA).

Chronological Organization

The projects within each region and theme are then listed chronologically, according to their approval dates. Each project has a reference number, preceded by the year in which it was approved. For example, project 860057 was approved in 1986. The projects described are active unless indicated as "Completed" at the end of the project description.

Canadian Dollars

Note that all figures are expressed in Canadian dollars unless otherwise stated.

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I C O D

Caribbean Basin Projects

Theme: Integrated Ocean Management and Development (AA)

860024AA Short-Term Academic Exchange Awards permitting up to six months of study at Canadian institutions were granted to four graduate students registered in marine-related programs at UWI. $50,000; 1 year. Completed.

860091AA Maritime Boundary Workshop — OECS A three-day workshop on maritime boundary delimitation was organized by the OECS to help member states formulate proposals for regional action on maritime boundaries. $23,000; 1 week. Completed.

870122AA SEAPOL Ocean Boundary Course — OECS ICOD provided funds enabling OECS to send a representative from the Eastern Caribbean to the ICOD-funded SEAPOL Ocean Boundary Course held in Singapore in June 1987. $4,141; 2 weeks. Completed.

880207AA OECS Participant — ICOD-FFA Boundary Delimitation Workshop To assist the development of a regional advisory committee established by the OECS to help member states negotiate maritime boundaries with nonmember states, ICOD provided support for an OECS representative to attend the ICOD-FFA Boundary Delimitation Workshop in Western Samoa. $8,000; 10 days. Completed.

880217AA Marine Law Database and Document Delivery Service (MARLAW) In order to provide national governments and regional institutions in the Caribbean region with comprehensive information on marine legislation, UWI is creating an automated marine law database. The database, known as MARLAW, will become an integral part of the law library at UWI's Barbados campus. $365,000; 3 years.

880261AA Advisory Support for Oceanographic Data Collection and Training In cooperation with representatives of UWI, physical and chemical oceanographers from Canada undertook a study to determine the resources UWI requires in order to develop and strengthen its education and research capabilities in marine science. $49,900; 2 months. Completed.

890307AA Development of a Marine Sciences Centre — UWI In order to increase the Caribbean's capacity to undertake research and produce relevant information in the field of marine science, ICOD is providing support for the establishment of a Marine Sciences Centre within UWI. This centre will provide a regional focus for marine scientific training and research to be conducted in response to the region's marine priorities. $325,000; 4 years.

Theme: Fisheries Management and Development (DA)

850010DA OECS Fisheries Unit With ICOD help, a Fisheries Support Unit has been established within the OECS. This unit provides the countries of the region with a permanent regional fisheries capability and promotes, coordinates, and facilitates regional fisheries cooperation. $668,070; 3 years.

860034DA Fishermen's Assistance Program — Dominican Republic Technical and advisory assistance was provided to enable La Isabela Fishermen's Cooperative to improve its fishing capabilities. This project formed the basis of an artisanal fisheries extension program along the northern coast of the Dominican Republic. $71,000; 1 year. Completed.

860035DA Fisheries Training — Pictou, Nova Scotia In August 1986, a training program in the maintenance of outboard motors and diesel engines was held at Nova Scotia's School of Fisheries in Pictou for 15 fishermen from St. Lucia and Barbados. $65,000; 2 months. Completed.

860048DA Dominica Licensing System A draft set of fisheries regulations was refined in order to enable Dominica to establish a fisheries licensing scheme. $8,500; 1 month. Completed.

860049DA Caribbean Fishermen's Training ICOD provided support for a six-week training course in artisanal fisheries held at the Nova Scotia School of Fisheries for St. Lucian and Grenadian nationals. Graduates of this course then acted as resource persons and instructors in a follow-on course offered to fishermen in Barbados and St. Lucia. (See also projects 860035, 870121, and 880191.) $95,877; 3 months. Completed.

860072DA Economic Analysis and Economic Policy Development — Costa Rica On the basis of an economic analysis of existing and potential fisheries in Costa Rica, recommendations for an economic policy to promote the development of the country's fisheries are being prepared for the Fisheries Division of Costa Rica's Ministry of Agriculture and Livestock. $177,580. 21 months.

860089DA Statistical Sampling Methods Workshop During a five-day training workshop held in Barbados for fisheries officers from Barbados, Trinidad and Tobago, and OECS member states, data collection programs were designed for individual member states. $16,000; 1 week. Completed.

860098DA Consultancy in Fisheries Management Operation — Dominica A consultant was provided to the Division of Fisheries in Dominica to coordi-

nate and monitor the country's ongoing fisheries development and management needs. $30,000; 6 months. Completed.

870121DA CFTDI Institutional Enhancement — Trinidad and Tobago In order to increase CFTDI's capacity to meet fisheries training needs in the Caribbean, ICOD provided funding for a CFTDI staff member to receive technical upgrading at the Nova Scotia School of Fisheries in Pictou. $13,500; 8 months. Completed.

870124DA Workshop on Regional Fisheries Access — OECS In order to promote further regional cooperation in fisheries management and development, the OECS Fisheries Unit held a four-day workshop on Foreign Access to Fisheries. During the workshop, representatives from OECS member states drafted a harmonized foreign access policy. $28,635; 1 week. Completed.

870132DA Fisheries Data Management — Institutional Enhancement Program In order to enhance the fisheries management capabilities of OECS member states, ICOD and the OECS Fisheries Unit are providing national fisheries divisions with technical and advisory assistance in the implementation of data collection systems designed during the ICOD-OECS Statistical Sampling Methods Workshop (project 860089). ICOD has also provided computer hardware and software necessary for the analysis of relevant fisheries data. $195,000; 1 year.

870138DA Reef Fisheries Management Planning — Jamaica/Belize In cooperation with UWI, ICOD is helping Jamaica's Fisheries Division and the Department of Fisheries in Belize to establish management plans for their reef fisheries. Consultants are carrying out biological and socioeconomic surveys of the fisheries in Jamaica and Belize and will compile the collected data into reports to be used in the management planning phase of the project. $278,500; 3 years.

870142DA Technical Publication Support To help the OECS Fisheries Unit coordinate advice and information, ICOD provided funding enabling a consultant from the region to analyze the need for publications and documentation and to recommend a scientific publishing program. Support was also provided to publish the proceedings of two workshops on fisheries data collection, management, and development in the Eastern Caribbean. $20,000; 6 months. Completed.

870158DA Advisory Support for Fisheries Development — Dominica, OECS ICOD provided the services of an expert fisheries advisor to the Ministry of Agriculture of Dominica in order to train new Fisheries Division staff and help implement fisheries management and development plans prepared under project 860098. Under the auspices of the OECS, the advisor provided similar assistance to other OECS member states. $49,940; 14 months. Completed.

870175DA Fisheries Surveillance — Eastern Caribbean In support of regional efforts to control illegal foreign fishing in the OECS region, ICOD has provided the OECS with financial and advisory assistance for a comprehensive regional fisheries surveillance program. $49,800; 4 months.

880189DA Eastern Caribbean Fisheries Marketing Strategy ICOD is providing advisory support to the member states of the OECS in order to develop a strategy for improving the efficiency of marketing fish at the national, regional, and international levels. As part of this project, the OECS Fisheries Unit undertook surveys of the requirements and potential of the national, regional, and selected export markets. $77,225; 1 year.

880191DA OECS Fishermen's Training Program As part of a program to develop the capacity to train fisherman within the OECS region, fishermen have been trained at Nova Scotia's School of Fisheries in Pictou, at the Caribbean Fisheries Training and Development Institute in Trinidad, and at the community level in OECS countries. Courses focus on safety, navigation, engine maintenance and repair, fishing gear, and business management skills. Individual fishermen who completed the Fishermen's Training Course were selected for further training as fisheries instructors and participated in the delivery of the community-level workshops. (See also projects 860035, 860049, and 870121.) $271,000; 3 years.

880199DA OECS Workshop on Fisheries Access, Monitoring, Control, and Surveillance To assist the OECS in establishing a regional policy on foreign fishing access and surveillance, a six-day workshop was conducted in Dominica for representatives from OECS member states. Elements of fisheries access, monitoring, control, and surveillance were investigated, and recommendations were compiled for presentation to the Secretariat at the OECS Authority's November 1988 meeting. $33,810; 1 week. Completed.

880202DA OECS Fisheries Newsletter This project helped the OECS Fisheries Unit launch a newsletter covering issues facing the region's fishing industry and the efforts being made to deal with them on a regional basis. (See also project 900356.) $23,000; 15 months.

880212DA Lobster Assessment Program — Jamaica ICOD is providing financial and advisory support to enable the Fisheries Division of Jamaica's Ministry of Agriculture to undertake a comprehensive survey of the lobster stocks of Pedro Bank. Biological information on the lobster is being collected and analyzed and will be used in the preparation of management plans for the fishery. $227,000; 2 years.

880214DA Eastern Caribbean — Fisheries Monitoring, Control, and Surveillance ICOD is providing financial and advisory support for a regional monitoring, control, and surveillance program. The OECS is preparing detailed plans for monitoring,

control, and surveillance activities and is establishing a fisheries observer program, to be implemented under the direction of a regional surveillance coordinator. $155,200; 1 year.

880227DA OECS Small Projects Funding Program The OECS Fisheries Unit is administering a funding scheme for small bilateral projects. This scheme enables the unit to respond to requests from member states for discrete small-scale projects which have a direct impact on fishermen in the region. $675,000; 3 years.

880250DA Fisheries Division Institutional and Administrative Planning On behalf of the OECS member states, the OECS Fisheries Unit is implementing a program to help national governments design and establish more rational institutional structures for their respective fisheries divisions. The project addresses the need for increased staff, the clarification of staff responsibilities, and the need for the further recognition of those activities that can be undertaken more effectively at the regional level. $155,000; 1 year.

890295DA Examination of Biological and Climatic Factors Related to Low Catch Rates — Eastern Caribbean This project provided the OECS Fisheries Unit with technical support to investigate the causes of reduced landings of migratory pelagic fish during the 1989 fishing season. Recommendations for remedial action to alleviate the situation were also made. $18,310; 3 months. Completed.

890343DA Second OECS Regional Workshop on Fisheries Management and Development In May 1990, the OECS Fisheries Unit convened its second regional workshop on fisheries management and development. The workshop reviewed the activities of the Fisheries Unit over the past two years and was attended by fisheries ministers, their permanent secretaries, fisheries officers, and fishermen. Proposals for a revised program for the next two years were developed to accommodate the needs of fishermen and member states. $32,250; 1 month.

900356DA OECS Fisheries Unit Newsletter: Phase II ICOD is continuing to provide funding for *On Board*, the OECS Fisheries Unit's newsletter, which was established in 1988 with ICOD support. *On Board* addresses fisheries management issues in the Eastern Caribbean, and six issues have been produced and distributed to date. Funding for the editor's salary and printing costs is currently being provided on a declining basis. (See also project 880202.) $26,000; 2 years.

900374DA Caribbean Fishery Resources Assessment and Management Program On behalf of CIDA, ICOD will be coordinating the implementation of the Caribbean Fishery Resources Assessment and Management Program, designed to provide CARICOM member states with the institutional capacity and resource information necessary to manage the region's fisheries resources in a sustainable manner. The program will be undertaken through a series of sub-projects specifically designed to address management planning, fisheries extension, training and institutional enhancement, and the provision of resource information on reef fishes, slope fishes, large pelagics, coastal pelagics, flying fish, shrimp, and groundfish. $14,998,000; 8 years.

900375DA Caribbean Fishery Resources Assessment and Management Program In cooperation with CIDA, ICOD is providing financial and advisory support for a Caribbean regional fishery resource assessment and management program. This project, undertaken by CARICOM, will provide CARICOM member states with the institutional capacity and resource information necessary to manage the region's fisheries resources in a sustainable manner. Specifications for databases and information systems will be developed, and computerized systems will be put in place at the national level. The lobster and conch resources will be assessed, and recommendations will be made regarding the management of the two species and any additional research required. $2,690,000; 8 years.

Theme: Mariculture (JA)

860036JA Sea Moss Cultivation Program — Eastern Caribbean In cooperation with the OECS, the governments of St. Lucia and Grenada, and the Eastern Caribbean Natural Areas Management Program, support was provided for the inter-island exchange of small-scale sea moss mariculture techniques and for a survey of existing and potential markets of sea moss and sea moss products. $125,000; 1 year. Completed.

870125JA Sea Moss Bibliography As a contribution to efforts in the Eastern Caribbean to cultivate and market sea moss, this project has supported the preparation of an annotated bibliography of sea moss literature and its cultivation in the region. The bibliography will be printed and distributed under this project. $13,800; 6 months.

Theme: Coastal Development and Management (KA)

870139KA Caribbean Marine Parks and Protected Area Management Program With assistance from ICOD-funded Canadian consultants, CCA organized and hosted a workshop on Marine Park Development and Management for Barbados, Belize, and OECS member states. $24,000; 6 months. Completed.

Theme: Marine Transportation and Ports Management (MA)

870126MA Course on Navigation and Seamanship — Barbados ICOD provided financial and technical support enabling the Barbados Fisheries Division and Coast Guard to design and deliver a short course on coastal navigation and seamanship. $4,000; 3 weeks. Completed.

Theme: Marine Environmental Conservation (NA)

870134NA Marine Education Kit — St. Kitts/Nevis This project will develop, introduce, and test a marine educational program for primary and secondary school courses in St. Kitts/Nevis in order to provide a base for ongoing activities in marine environmental education. Teacher training manuals, workbooks and handouts for students, and a teacher training program form the major components of the project. $108,000; 1 year.

880195NA Graduate Program in Marine Resource and Environmental Management — UWI: Phase I In order to train environment and resource managers and to encourage environmental research, ICOD is providing the Centre for Resource Management and Environmental Studies (CERMES) of UWI with financial support to strengthen its diploma program and to increase the institution's capacity to provide more advanced training. $920,000; 3 years.

880228NA Development of a Marine Interpretation Centre — Barbados To promote marine environmental conservation and awareness, the Government of Barbados is developing a Marine Interpretation Centre at the Folkstone Marine Museum. ICOD assisted the Government of Barbados in the planning and design of the centre, which is intended for use by school children, university students, tourists, and the general public. $10,900; 1 month. Completed.

880252NA Enhancement of Coastal and Marine Environmental Monitoring Capability in the Caribbean This project is helping to establish and, where possible, strengthen national environmental monitoring units within the Commonwealth Caribbean. Under the general direction of CEHI, these units will collect and analyze data and information on a range of marine environmental parameters. $1,005,500; 4 years.

900371NA Marine Parks and Protected Areas Management Network Through CCA, ICOD is providing training, technical, and financial support to marine managers in order to improve the management of marine parks and protected areas in the Caribbean. Links between CCA and other institutions involved in marine park management will be encouraged, and the ability of CCA to respond rapidly to requests for training, technical, and financial assistance will be strengthened. Ten pilot projects involving selected national marine parks will be carried out. (See also project 870139.) $964,000; 3.5 years.

South Pacific Projects

Theme: Integrated Ocean Management and Development (AA)

860065AA Study of Information Systems In collaboration with the FFA, the SPC, and the Pacific Information Centre, ICOD assessed existing fisheries and marine information systems and recommended systems appropriate for the South Pacific. $19,500; 2 months. Completed.

860087AA Kiribati Boundary Delimitation ICOD provided Kiribati with advisory assistance to help resolve issues regarding the delimitation of maritime boundaries. $26,600; 2 months. Completed.

870106AA Preparatory Study for the Establishment of the Pacific Islands Marine Resources Information System Further to project 860096, a preliminary proposal for the establishment of the Pacific Islands Marine Resources Information System (PIMRIS) was developed. Additional information on existing information resources and training requirements was gathered under the coordination of USP. $20,000; 2 months. Completed.

870130AA Development of the Regional Coordination Unit at USP for a Pacific Islands Marine Resources Information System A marine resources information system in the South Pacific has been identified as a crucial factor in providing access to information in the region. The Pacific Islands Marine Resources Information System (PIMRIS), which is expected to provide that access, will consist of a coordinating centre at USP in Fiji, and three focal points at FFA, the SPC, and SOPAC. This project supports the establishment of a coordinating unit at USP. (See also projects 870137 and 880193.) $367,540; 3 years.

870131AA Law Faculty Assistance — UPNG This project provided the UPNG law faculty with assistance to develop its capabilities in the field of the law of the sea. In 1988, a Canadian specialist was posted to UPNG to teach the faculty's law of the sea course, and a second such posting was made in 1989. In order to ensure future capacity in this field, postgraduate training in Canada was provided for a Papua New Guinean law graduate, who has completed his LL.M. degree and is currently on the law faculty at UPNG. $144,000; 20 months. Completed.

870163AA Cook Islands Boundary Delimitation Assistance Two Canadian consultants provided technical and legal advice regarding maritime boundary delimitation issues in the Cook Islands. $30,500; 3 months. Completed.

870165AA Western Samoa Boundary and Legislation Assistance The services of two consultants—one legal and one technical—were provided in order to review marine legislation and maritime boundary issues in Western Samoa and to advise the country's government on these issues. $29,000; 2 months. Completed.

870168AA Publication of Management of Marine Resources in Kiribati This project supported the publication of *Management of Marine Resources in Kiribati*, an account of the development of an effective fisheries management system, the problems encountered during its evolution, and the problems of ocean mineral and security interests. $8,000; 3 months. Completed.

870173AA Legal Affairs Unit — FFA This project provided interim salary and program support for the FFA's Legal Affairs Unit. The unit's legal officer provides FFA member governments with legal advisory services in fisheries matters, supports fisheries access negotiations, reviews fisheries legislation, provides legal training, and prepares policy papers and briefs for member governments. $49,000; 5 months. Completed.

880186AA Maritime Boundary Delimitation Workshop To enable policy-makers from the South Pacific region to assess regional needs and identify areas for potential cooperation, a regional workshop on maritime boundary delimitation issues was developed and implemented by ICOD in cooperation with the FFA. $111,000; 2 weeks. Completed.

880223AA Canada-South Pacific Ocean Development Program This project is a $10-million, CIDA-funded project being executed by ICOD. Sub-projects will cover all areas of ocean development in the South Pacific. To date, the following 28 sub-projects have been approved with 5 of the 6 regulatory agencies involved in the program, committing over $7 million of the total budget. $10,000,000; 5 years.

Theme: Integrated Ocean Management and Development (AA)

C-002AA Development of Work Plan — ORMP
$64,000; 6 weeks.

C-005AA Marine Studies Program Development
$200,000; 3 years.

C-014AA Legal Affairs Program
$430,000; 2 years.

C-019AA Training Activities — ORMP
$330,000; 2 years.

C-025AA Infrastructure Support — ORMP
$493,000; 2 years.

C-033AA Marine Studies Scholarships — USP
$280,000; 5.5 years.

C-037AA Regional Maritime Legal Advisor
$390,200; 2 years.

Theme: Fisheries Management and Development (DA)

C-001DA Technical Support for Training Program — IMR
$52,000; 10 months.

C-004DA International Fisheries Cooperation Program
$118,000; 2 years.

C-012DA FFA Fellowship Program
$175,000; 2 years.

C-013DA Fisheries Technical Assistance
$307,750; 3 years.

C-015DA Fisheries Database Development
$178,000; 2 years.

C-020DA Regional Marine Turtle Conservation and Management
$343,000; 3 years.

C-026DA Conference on Management and Development Strategies in South Pacific Fisheries
$114,000; 1 month.

C-032DA Women in Fisheries Program Development
$337,700; 2 years.

Theme: Mariculture (JA)

C-006JA Expansion of Giant Clam Production — CAC
$175,000; 2 years.

Theme: Coastal Development and Management (KA)

C-017KA SOPAC Coastal Development Program
$498,000; 2 years.

C-023KA Coastal Resource Management Program in the South Pacific
$498,950; 3 years.

C-031KA Workshop on Coastal Investigations and Engineering
$98,000; 7 months (workshop: 2 weeks).

Theme: Nonliving Resource Management and Development (LA)

C-003LA Petroleum Geophysicist Support
$95,000; 6 months.

C-016LA SOPAC Hydrocarbon Program
$497,000; 2 years.

C-018LA SOPAC Offshore Coordinator
$415,000; 2 years.

C-038LA Earth Science and Marine Geology Program Development — USP
$324,000; 3 years.

Theme: Marine Transportation and Ports Management (MA)

C-008MA South Pacific Maritime Development Program — Work Program
$105,000; 9 weeks.

C-009MA South Pacific Maritime Database
$31,000; 7 weeks.

C-034MA National Port Safety Seminars — South Pacific Maritime Development Program
$129,150; 6 months.

C-035MA Development of Regional Maritime Training Plan
$214,500; 8 months.

C-036MA Shipbuilding and Repair Facilities Regional Planning Study
$232,450; 9 months.

880241AA Para-Legal Training — Vanuatu and Solomon Islands This project provided UPNG with a law of the sea specialist to teach the marine component of para-legal short courses conducted in Vanuatu and the Solomon Islands. The project is part of an effort to help UPNG train Pacific Island para-legal personnel in the practical aspects of juridical administration. $21,600; 1 month. Completed.

890279AA Provisional Treaty Lines ICOD provided funding enabling consultants engaged by the FFA to identify and recommend basepoints and baselines for FFA member states to utilize in the definition of areas affected by the multilateral tuna treaty. Using the data obtained in the course of this project, the consultants developed a detailed workplan for a further proposal to prepare and recommend upon provisional treaty lines. $59,400; 3 months. Completed.

890310AA Para-Legal Training — Vanuatu and Solomon Islands 1989-90 In response to the need to train para-legal personnel, the law faculty of UPNG conducted a three-week course in Vanuatu and the Solomon Islands for officials responsible for the administration of the judicial system. ICOD provided support for a law of the sea specialist from Canada

to teach a marine component of these courses, which was included because the governments of both countries are attempting to increase control of their marine jurisdictions. $23,500; 8 weeks. Completed.

Theme: Fisheries Management and Development (DA)

850011DA FFA Surveillance This project enabled the FFA to enhance the surveillance and enforcement capabilities of its independent member states. Specific objectives included the establishment of a regional surveillance and enforcement advisory service, the provision of support for its related operations, and the training of surveillance officers. A Canadian surveillance advisor was posted to the FFA for a two-year period ending in December 1987. A replacement was posted to continue the project until February 1990, when a Pacific Island national took over. $1,000,000; 5 years.

850012DA Vanuatu Fisheries Extension Centres In cooperation with CUSO, this project helped Vanuatu's Department of Fisheries further the development of artisanal fisheries extension centres and services in the country's villages. $425,500; 2 years. Completed.

850013DA Fisheries Research Needs and Assessment On behalf of the FFA, a Canadian consultant and a South Pacific consultant assessed the research required in order to advance the management and development of South Pacific fisheries. The potential role of Canadian expertise in expanding the region's small-scale fisheries was also considered. (See also projects 860065 and 860075.) $55,000; 6 months. Completed.

860026DA Fishing Skills Course — SPC Two fisheries personnel from the Solomon Islands and Vanuatu were awarded scholarships to participate in a course on fishing skills extension methods, offered by the SPC in 1986. $7,800; 2 months. Completed.

860047DA Coastwatchers Pilot Project ICOD funded a pilot project in the Solomon Islands establishing a network of surveillance assistants on outer islands to monitor the activities of foreign vessels. $15,000; 1 month. Completed.

860062DA Tropical Fisheries Diploma Scholarships — USP, Federated States of Micronesia This project granted seven scholarships enabling students from the South Pacific region to pursue the three-year Tropical Fisheries Diploma Program offered by USP. Students from the Federated States of Micronesia have completed their third year of study. $232,237; 3 years.

860075DA Fisheries Research Needs and Assessment In 1987, the assessment conducted under project 850013 was extended to countries not previously studied. The recommendations of the consultants led to the establishment of a Research Coordination Unit at the FFA (project 870116). $25,000; 3 months. Completed.

860079DA Communications Study — Micronesia The FFA and an ICOD-funded Canadian consultant designed a surveillance communications system to facilitate communication between the widespread islands of the Federated States of Micronesia. $15,000; 1 month. Completed.

860082DA Village Fisheries Development Program Evaluation A comprehensive review of the five-year Village Fisheries Development Program was carried out by a Canadian consultant in order to assist the Government of Vanuatu in the long-term planning of its small-scale fisheries. $57,560; 1 year. Completed.

860083DA Vanuatu Fishermen's Study and Training Tour On behalf of the Government of Vanuatu, ICOD provided support for an overseas training tour which exposed leading village fishermen to improved methods for catching and handling fish. In addition to providing insight into target markets, this project contributed to a general effort to improve fish handling and marketing in Vanuatu. $41,400; 2 months. Completed.

860085DA Fisheries Short Courses In cooperation with CUSO, two short courses focusing on fishing skills and cooperative management procedures were delivered at fisheries extension centres in Vanuatu. $2,300; 1 month. Completed.

860086DA Research Institute Feasibility In cooperation with USP and the FFA, Canadian and South Pacific personnel conducted a feasibility study and review of USP's fisheries research activities. They also made recommendations for the creation of a regional fisheries research institute. $48,000; 6 months. Completed.

860096DA Representatives to Regional Fisheries Information Meeting ICOD provided support for representatives from seven Pacific Island states to attend the Regional Fisheries Information Meeting, held in 1987 in Noumea, New Caledonia. The participants elaborated the framework for a Regional Fisheries Information System for the South Pacific. $20,000; 1 month. Completed.

870111DA Fisheries Extension Skills Course — SPC ICOD provided funding enabling the SPC to develop a course in fisheries extension skills and communications techniques for senior fisheries officers. Developed as a result of an SPC survey which indicated that member countries consider training in the area of fisheries extension work a priority, the regional course trained the fisheries officers to conduct similar courses for other fisheries personnel. (See also project 880188.) $88,500; 4 weeks. Completed.

870113DA Observer Training Courses — FFA In order to train observers to be placed on foreign fishing

vessels, the FFA conducted two two-week courses covering the legal, scientific, and marine aspects of observer duties. (See also project 880257.) $46,200; 3 months. Completed.

870115DA Fisheries Enforcement Workshop — FFA To help member states enforce agreements governing access to regional and subregional fisheries, a workshop for fisheries prosecution experts was held by the FFA in order to standardize the approach to fisheries prosecutions in the South Pacific region. $58,000; 6 days. Completed.

870116DA Research Coordination Unit — FFA A Research Coordination Unit has been established by the FFA to provide advice on the planning, formulation, and implementation of national and regional fisheries research projects. This unit facilitates the provision of funding through other agencies for research activities to be conducted and monitored, and it encourages the transfer of expertise to national research scientists attached to the FFA. A coordinator was posted to Honiara in January 1988. $490,000; 3 years.

870117DA FFA Surveillance Fellowship A fellowship granted to Papua New Guinea's Chief Surveillance Officer enabled the officer to work with the FFA during its review of the country's surveillance program and to help develop a network of regional surveillance advisors. $15,000; 4 months. Completed.

870120DA Surveillance Statistics Consultancy The Australian and New Zealand air forces conduct fisheries surveillance overflights of the South Pacific. To assist the FFA in requesting routings for surveillance of the jurisdictions of FFA member states, ICOD funded a consultant to conduct a detailed analysis of existing surveillance data. $12,760; 1 month. Completed.

870144DA Traditional and Inshore Fisheries Development — South Pacific ICOD provided the FFA with funding to help member governments integrate the best elements of their traditional inshore fisheries with modern management principles and stock assessment methods. The Solomon Islands was the first to survey its traditional methods, and a report of the findings was produced. $16,500; 7 months. Completed.

870150DA Rural Fishing Groups — Solomon Islands This project supports the development of four small-scale fishing groups in Western Province, Solomon Islands, through assistance in boat-building, fisheries extension, and marketing. ICOD is supporting a project officer/advisor and is providing boat-building materials and working capital on a loan basis. An advisor was posted to Western Province in May 1988. $144,595; 2 years.

870157DA SPC Workshop on Inshore Fisheries Resources Expert and Participant Sponsorship ICOD sponsored three fisheries scientists from Canada and two from the South Pacific to participate in the SPC's March 1988 workshop, held to facilitate the exchange of research information in the region. (See also project 870170.) $21,000; 2 weeks. Completed.

870160DA Tropical Fisheries Diploma Scholarships — USP, Republic of Palau Four Palauans were selected to attend the three-year Tropical Fisheries Diploma Program offered by USP. The requirement of specialized fisheries training is one component of the Marine Resource Division's human resource development program, which is designed to improve the division's technical capacity to develop and manage Palau's marine resources. $120,000; 3 years.

870161DA Vanuatu Fisheries Extension Advisor In order to support the development of a rural fisheries extension service in Vanuatu, ICOD provided advisory assistance by posting an experienced fisherman from Canada to the extension service in 1988. The extension service provides advice and support to small-scale fishing enterprises created under Vanuatu's Village Fisheries Development Program. $110,400; 2 years.

870162DA Regional Fisheries Database Implementation To improve the capacity of the FFA's data management systems, ICOD sponsored three consultants to help implement a new database integrating the regional fishing register, log-sheet data, a mapping system, licensing data, and the United States tuna treaty system. $32,000; 3 months. Completed.

870164DA South Pacific Prosecutions Procedures Study As a follow-up to the ICOD-FFA Fisheries Enforcement Workshop (project 870115), this project provided a consultant to outline standard fisheries offenses and draft appropriate penalties, prepare supplementary regulations, establish evidentiary provisions, and prepare a procedures manual for prosecutors. $48,500; 5 months. Completed.

870169DA Vanuatu Fisheries Extension Program — Monitoring System A Canadian consultant was provided to help the Vanuatu Fisheries Department establish a data collection and analysis system with which to monitor inshore fisheries and artisanal fisheries extension services. $9,300; 1 month. Completed.

870170DA Support for Inshore Fishery Resource Workshop In cooperation with the FFA, the SPC's Inshore Fisheries Research Project conducted a workshop in March 1988 to facilitate the exchange of research information between regional scientists. ICOD support enabled five Pacific Island nationals to participate. (See also project 870157.) $20,000; 2 weeks. Completed.

870176DA Small Projects Fund — FFA ICOD assistance enabled the FFA to undertake six discrete sub-projects within its approved regional work program, including legal consultancies, computer development in fisheries departments, and the eco-

nomic analysis of national project proposals. $30,500; 2 months. Completed.

870178DA Vessel Surveillance System Feasibility Study A Canadian consultant reviewed technical options and assessed the feasibility of a proposed vessel surveillance system that would utilize Canadian technology. $46,239; 4 months.

880188DA Fisheries Extension Training Courses — Pacific Island Countries To enhance fisheries extension services, courses in extension skills were conducted for fisheries department personnel in seven Pacific Island countries. The courses were developed by fisheries officers who had attended the regional course in extension skills conducted in Fiji under project 870111. A manual developed during the Fiji course was used as the text and will soon be published. (See also project 860026.) $135,000; 1 year. Completed.

880193DA Enhancement of Fisheries Information Handling Capabilities at the FFA As a focal point for PIMRIS, the FFA requires staff support for publication and information services. This project is helping the FFA collect, synthesize, and distribute information on fish marketing, legal matters, statistics, and industry intelligence. A Canadian information officer/librarian is staffing the information centre, managing the selection of publications, and providing information services to member states and outside sources. (See also projects 870130 and 870137.) $358,000; 3 years.

880196DA Training Videos on Fish Chilling In order to meet a recognized need for a series of training videos demonstrating the technical aspects of onboard and onshore fish handling, processing, and storage methods, ICOD has provided support for SPC to produce 2 videos on fish chilling, each 10 to 15 minutes long. The videos address the problems of handling and chilling fish onboard small fishing vessels, and the handling and processing of fish in a small processing plant. $29,500; 6 months.

880201DA Papua Regional Women's Training Course on Fish Processing and Marketing In order to support the efforts of Papua New Guinea's Provincial Councils of Women and the Department of Home Affairs and Youth to involve women in viable income-generating enterprises, this project provided selected women leaders with training in fish processing and marketing. As a result, they were able to develop plans for small-scale fish processing and marketing in their home areas. $22,430; 2 weeks. Completed.

880204DA Regional Women's Conference, Participant Sponsorship ICOD sponsorship enabled resource women from the Cook Islands, Niue, Papua New Guinea, Solomon Islands, and Vanuatu to attend the Regional Women's Conference held in September 1988. The participants produced a report on the conference and made recommendations on how the role of women in fisheries could be developed in their respective countries. $6,500; 5 days. Completed.

880205DA Marketing Studies of Marine Products — FFA This project supported the publication and dissemination of a consolidated volume of studies the FFA has made of the markets for specific marine products. The FFA compiled and prepared the final text, and the Institute of Pacific Studies at USP edited, typeset, and published the book. $20,000; 6 months. Completed.

880211DA Microcomputer Training and Systems Development — Pacific Island Fisheries Departments This project consisted of two computer training courses—one introductory and one intermediate—and a Fisheries System Workshop conducted at USP's Computer Training Centre in 1989. These courses provided specialized computer training for personnel from the Pacific Island Fisheries Departments and developed the databases required to manage fisheries resources. $135,000; 6 months. Completed.

880215DA Regional Fisheries Observer Program The regional tuna treaty in the South Pacific provides for fisheries observers to be placed onboard vessels to ensure compliance with access terms and to further the collection of scientific data on the tuna resource. This project is funding a regional observer program which will enable observers to accompany vessels on trips encompassing several national fishing zones. $110,000; 2 years.

880221DA Regional Mapping System and Vessel Register Upgrade The FFA has recently upgraded its computer hardware in Honiara and implemented the Relational Database Management System (Oracle RDMS) software. The result of this project is improved computer services for all operational units of the FFA and the capacity to add further applications. $15,000; 3 months.

880222DA Institute of Marine Resources — Program Review Since 1978, the Institute of Marine Resources (IMR) at USP has offered a diploma in Tropical Fisheries to train officers for Pacific Island fisheries departments and industry. This project enabled IMR to conduct a regional survey to determine the effectiveness of the diploma program and to identify other training required for the development of marine resources in the South Pacific region. $11,500; 7 months. Completed.

880229DA Institute of Marine Resources — Institutional Enhancement This project will help USP expand and develop the teaching and research capacity of its Institute of Marine Resources (IMR) through the recruitment of a fisheries biologist. The appointee has teaching responsibilities in the Tropical Fisheries Diploma Program and will participate in the development of new IMR courses. If required, the appointee will also assist with research at the proposed IMR research facility, to be located in the Solomon Islands. $70,000; 3 years.

880255DA Conference on Management and Development Strategies for South Pacific Fisheries This project provided support for a regional conference held at FFA headquarters in Honiara in late 1989. The last ten years of development in fisheries in the South Pacific were critically reviewed and new directions for the next decade were identified. Funding was also provided to publish the conference proceedings. $162,400; 2 weeks.

880256DA Specialized Fisheries Training ICOD is providing support for an FFA project to provide specialized fisheries training to two trainees selected by the Marshall Islands Resources Authority, which is responsible for fisheries development and management in the Marshall Islands. Trainees are currently in their third year of USP's three-year diploma program in Tropical Fisheries. $68,000; 3 years.

880257DA Fisheries Observer Training In order to help Pacific Island countries meet the demand for onboard fisheries observers to monitor the activities of foreign vessels operating under multilateral treaty arrangements, this project will continue the observer training provided under project 870113. New recruits will be trained, and the knowledge and skills of full-time observers will be upgraded. Support will be provided for the FFA to conduct three courses, the first of which took place in 1989. $117,000; 3 years.

880259DA Small Fisheries Projects Funding Program — FFA A projects fund has been set up and will be administered by the FFA to support small-scale fisheries development initiatives in the Pacific Islands region. These projects will occur in direct response to fisheries development initiatives arising at the village level of FFA member countries. $240,000; 3 years.

880268DA Fisheries Consultancies Four member countries of the FFA have requested assistance in reviewing national fisheries agencies and activities. The reviews will include recommendations regarding organizational structure and human resource development requirements and, in one case, a feasibility plan regarding a potential market for aquarium fish. $30,000; 8 months.

880269DA Computer Training and Upgrading The FFA Computer Services section provides support to other sections of the FFA and to the fisheries divisions of its member countries. Within its overall work program, there are often several small projects designed to respond to the needs and requests of particular states and to improve the capacity of FFA staff to carry out their assigned tasks. This project funds several activities within these categories. $40,000; 3 months.

890286DA Fisheries Extension Development Workshop ICOD provided funds to enable the SPC to conduct a regional workshop designed to help Pacific Island countries review the operation of their countries' extension services, increase the ability of their fisheries divisions to develop effective extension services, and develop an informal local network of continuing support to the fisheries extension officers. The workshop has produced recommendations regarding future requirements for the development of extension services within the region. (See also projects 870111 and 880188.) $62,000; 1 week. Completed.

890288DA PIMRIS Outreach — USP This project is providing funding for a PIMRIS information officer to act as an interface between information specialists and fisheries officers. During extended visits to five national fisheries departments, the information officer will organize their document collections, provide training in information-handling techniques, and provide a direct question-and-answer service to fisheries officers. In addition, a small fund will enable the national fisheries departments to obtain the supplies and part-time staff they require in order to organize their collections. $200,000; 3 years.

890302DA South Pacific Regional Fisheries Surveillance and Enforcement Program: Phase II Under Phase I of this project (850011), a fisheries surveillance program was established by Canadian fisheries surveillance specialists working at the FFA. Phase II will enable the FFA to continue developing the program and to hire a Pacific Island national as their surveillance advisor. The project will also help develop a long-term surveillance work plan, annual program assessments, and a full evaluation of the program since its commencement. $600,000; 5 years and 5 months.

890305DA Coordination of Albacore Data In view of the concern over the large amounts of albacore tuna caught by driftnets in the South Pacific, this project will provide the SPC with the services of a senior Canadian fisheries scientist for three years. The scientist will conduct and coordinate research directed toward the assessment of the South Pacific albacore stocks and, ultimately, toward enabling the independent developing countries of the region to make more rational fishery management decisions. $405,000; 3 years.

890324DA Fisheries Training Directory — South Pacific This project will publish and distribute SPC's directory listing the training opportunities available to the personnel in the fisheries sector of Pacific Island countries. A database containing information relevant to the directory will also be created. $18,000; 1 year.

890325DA Fisheries Awareness With ICOD support, the FFA will produce a poster and two booklets encouraging students and civil servants to choose careers in the fisheries. These materials are intended to address concerns expressed by participants in the 1989 10th Anniversary Conference of the FFA, who concluded that the general awareness of the importance of fisheries to national and regional economies of the region requires enhancement and that effort

should be made to elicit interest in careers in the field. $42,900; 1 year.

890326DA Inshore Marine Resources of the South Pacific In response to a regional need for information, the FFA will compile and publish a reference book documenting the current status of South Pacific inshore fisheries resources. The biology, development, and management of specific fisheries will be addressed. FFA will distribute the book, free of charge, to fisheries personnel in FFA member countries and to regional agencies concerned with fisheries matters. $47,000; 1 year.

890328DA Systems Development Workshop In recent years, Pacific Island Fisheries Departments have acquired microcomputer hardware and software for fisheries information collection, data management and analysis, and for general administrative purposes. In order to address the requirement to expand the region's systems-development expertise, FFA conducted a three-week workshop for six fisheries personnel from countries with a demonstrated need for training. $30,000; 3 weeks. Completed.

890339DA Workshop on the Use of Length-Frequency Data in Fisheries Analysis — South Pacific This project funded a workshop to familiarize regional fisheries research staff with the MULTIFAN software. This package is designed to address some of the shortcomings of the stock assessment software ELEFAN, which uses length-frequency data and was introduced to ten regional fisheries research staff at a course held by the FFA Research Coordination Unit in Honiara in December 1988. MULTIFAN will be used to validate results produced by ELEFAN and to increase the confidence with which the results can be implemented in management decisions. $66,800; 2 weeks. Completed.

890342DA Development of a Management Regime for South Pacific Albacore Tuna Support was provided for a meeting at which Pacific Island representatives developed a regional position regarding the management of albacore tuna. Discussions with distant-water fishing nations also were initiated. The meeting is one of a series being held in order to develop a regime for the management and conservation of albacore, as expressed in the Tawara Declaration of 1989, and to prevent the damage that pelagic driftnet fishing does to the economy and environment of the South Pacific region. $55,200; 1 week. Completed.

900353DA Fisheries Extension Training and Development Funding is being provided for the SPC to conduct a second series of fisheries extension courses in order to increase and strengthen the base of trained extension officers in the region. Six tutors will spend two weeks teaching in a neighboring country, and eighteen new fisheries extension trainers will be trained. In addition, English and French versions of the South Pacific Fisheries Extension Training Manual, developed during previous training workshops, will be published and distributed. This project builds on several earlier ICOD projects involving extension training (see 870111, 880188, and 890289). $125,000; 1 year.

900354DA Fisheries Staff Training — Cook Islands ICOD provided support enabling a staff member from the Cook Islands Ministry of Marine Resources to complete the Tropical Fisheries Diploma program offered at USP. $4,000; 5 months. Completed.

900358DA Post-Harvest Fisheries Training This project is providing support for the SPC to conduct a six-week course in Suva, Fiji, in order to train twenty middle-level fisheries officers and plant managers to teach postharvest fish-handling techniques and marketing skills to local fisherfolk and plant workers. These skills have become particularly important since the recent commercialization of South Pacific fisheries and the increasing importance of export markets. The project will use the training model developed by the SPC, and will produce complete training materials and student hand-outs. The trainees will use these materials to conduct up to fourteen in-country courses, to be attended by local fishermen and plant workers. $246,000; 2 years.

900359DA Human Resources Management and Development of Fisheries Organisations A three-person consultancy team will review the short- and long-term human resource and development training needs of the national fisheries departments of Pacific Island states. A final report comparing these needs to the training capabilities in the region will be compiled for use as a planning tool by national fisheries departments, regional organizations, and training institutions. Senior fisheries officers and technical officers from regional agencies will review the report and recommend ways in which existing and potential training can meet the region's needs. $95,500; 6 months.

900364DA Institutional Development — Vanuatu Fisheries Department, Northern District: Phase II ICOD is supporting the continued development and reorganization of the Vanuatu Fisheries Department District Program. Two ni-Vanuatu officers will be trained to assume the positions of senior fisheries management officer and senior fisheries extension officer for the Northern District. The restructuring of the Northern District's fisheries program will be completed, and technical assistance will be provided for two years in order to operate the fisheries program while the officers are being trained. In addition, short-term consultancies will be funded in those cases where specialist knowledge is required. (See also project 870161.) $265,000; 3 years.

900376DA Sixth Regional Fisheries Surveillance Officials Meeting This project enabled the FFA to convene the sixth meeting of regional surveillance officials in order to review the progress of the South Pacific Regional Fisheries Surveillance and Enforcement Program, established by the FFA, and to direct its ongoing development. FFA member-country officials attended a five-day meeting, held in January 1991 in the Federated States of Micronesia. (See

also projects 850011 and 890302.) $80,000; 1 week. Completed.

Theme: Mariculture (JA)

870128JA Mariculture Training — Micronesia Over a two-year period, a total of twelve trainees from the Republic of Palau, the Federated States of Micronesia, and the Republic of the Marshall Islands attended a one-month training course in methods of cultivating giant clams, a highly valued food source. The course was conducted by the Micronesian Mariculture Demonstration Centre in Palau. $65,000; 2 years. Completed.

Theme: Nonliving Resource Management and Development (LA)

860041LA Regional Marine Geology Program — SOPAC In order develop a program for the identification and management of near-shore mineral resources in the South Pacific region, ICOD posted a Canadian geologist to the SOPAC Secretariat in Fiji for two years. 50,000; 2 years. Completed.

860057LA Non-Fuel Marine Mineral Resources Management Course — SOPAC As a follow-up to the Offshore Non-Fuel Mineral Course held in Halifax in March 1987 (Global project 860028), ICOD collaborated with SOPAC in designing a regional program to train geologists and senior decision-makers to assess and manage the non-fuel mineral resources in their coastal and economic zones. ICOD also provided scholarships for 12 participants to attend the course, held in Savusavu, Fiji, in October 1988. $80,000; 1 year. Completed.

870112LA SOPAC Fellowship Scheme Given the shortage of national technical expertise, SOPAC has established a fellowship scheme to permit the secondment of member-country nationals to the SOPAC Technical Secretariat. Seconded personnel worked with the Secretariat's professional staff on projects related to their own countries. The fellowship scheme assists member countries by training a group of technically qualified personnel capable of conducting basic offshore surveys, gathering environmental baseline data, and preparing project reports. $58,000; 3 years. Completed.

870137LA Strengthening Technical Information Services in Marine Geology and Nonliving Resources for the South Pacific Region As one of the focal points of PIMRIS, SOPAC needs better library and publication services. This project will provide a trained librarian, a more extensive library, an effective publication service, and information services that are not now available. Together, these will improve the effectiveness of researchers and other users of the information system and will support SOPAC's Technical Secretariat. (See also projects 870130 and 880193.) $326,700; 3 years.

880206LA Training Program in Computerized Geological Data Management Systems ICOD is providing funding to support a regional project to train Pacific Island nationals in the operation of a computerized geological data and information management system being developed at the Technical Secretariat of SOPAC (Techsec), as well as the operation of personal computer subsystems in each member country. The training will commence immediately upon the installation of the personal computers provided to Techsec by the EEC. $135,000; 3 years.

880230LA ICOD-SOPAC Scholarship Program SOPAC will implement a scholarship project to train a core group of Pacific Island geologists. This project will support the training of nine Pacific Island nationals at the Bachelor's-degree level in Canada. During vacation periods, scholarship recipients are expected to gain work-related experience in their own countries or with regional organizations. On completion of study, the students will return to their countries for employment with appropriate government departments. $905,320; 7 years.

890274LA Nearshore Minerals Prospecting Program — SOPAC For two years, ICOD has funded a nearshore minerals geologist at SOPAC (project 860041). The work carried out under the project has contributed greatly to the identification of potential resources and areas requiring further work. Work to date has also helped increase the priority assigned to this sector by SOPAC and its member countries, because the practical benefits and management issues relating to the sector have been highlighted and better delineated. This project will allow SOPAC and its member states to identify, utilize, and manage in a sustainable manner the nearshore mineral resources of the South Pacific. $1,190,000; 3 years.

890319LA SOPAC Fellowships Scheme: Phase II In consultation with member governments, SOPAC will grant approximately 45 fellowships to Pacific Island nationals over a three-year period. On-the-job training at the Technical Secretariat will provide fellowship recipients with the opportunity to work on projects being undertaken for their own countries. (See also project 870112.) $132,000; 3 years.

900362LA Management Training at SOPAC Annual Session Funding was provided for a pilot project enabling junior professionals from nine SOPAC member countries to attend and participate in SOPAC's 1990 Annual Session, held in October in Tarawa, Kiribati. The objective was to increase the ability of island country nationals to fulfill the management responsibilities associated with their positions in the natural resource departments of governments. $28,600; 1.5 weeks. Completed.

Theme: Marine Environmental Conservation (NA)

870179NA Environmental Education Kit on Coastal Zone Protection This project provided SPREP with support to develop educational materials relating to

coastal zone protection. An information kit consisting of booklets, posters, a fact sheet, and a case study leaflet was compiled by a marine biologist/graphic artist. $40,562; 7 months. Completed.

890333NA Marine Environmental Education Material Production — SPREP This project will provide SPREP with funding to produce education materials for use in environmental courses taught in the region's primary and secondary schools. The materials to be produced include a thirty-minute video on coastal environments in the South Pacific, an environmental case study leaflet on coral exploitation, and a fact sheet on traditional conservation of the marine environment. $62,000; 2 years.

890334NA Marine Environmental Education Teacher Training — SPREP In order to increase the extent and quality of environmental education in South Pacific schools, this project will enable 75 teachers to be trained in methods of incorporating environmental issues into their curricula. $62,000; 2 years.

I C O D

South and West Indian Ocean Projects

Theme: Integrated Ocean Management and Development (AA)

860032AA Study for a Regional Surveillance System for South and West Indian Ocean Maritime Resources On behalf of the IOC, consultants assessed the requirements for a system of monitoring, surveillance, and control in the South and West Indian Ocean region. Pertinent economic and technical data, along with information about national and regional governmental policies, were also collected for Comoros, the Seychelles, Madagascar, and Mauritius. $119,900; 8 months. Completed.

860037AA Marine Information — Sri Lanka The establishment of a Marine Affairs and Aquatic Resources Information System (MAARIS) at the National Aquatic Resources Agency in Sri Lanka is being co-funded by IDRC and ICOD. ICOD funding focuses on the establishment of an extension unit as part of MAARIS. $95,000; 2 years.

860064AA Indian Ocean Newsletter Support was provided for a newsletter covering the current status of marine affairs in the Indian Ocean region. The newsletter was produced and distributed by the IOMAC Secretariat in advance of the January 1987 IOMAC Conference. $8,103; 1 month. Completed.

860077AA Regional Fisheries Legislation Compendium — Indian Ocean In collaboration with FAO, a compendium of fisheries legislation in the Indian Ocean was prepared for distribution to fisheries officers, government officials, planners, and researchers in the region. $34,970; 3 months. Completed.

860081AA IOI Scholarships — Indian Ocean 1987 Four awards were granted to enable policy-makers from the Indian Ocean region to attend IOI's training program entitled Management and Conservation of Marine Resources: The Exclusive Economic Zone. $50,000; 1 year. Completed.

860101AA Feasibility Study: National Marine Resource Management — Mauritius A consulting team helped the Government of Mauritius develop guidelines for drafting a proposed national marine resource management and planning policy. $48,400; 3 months. Completed.

880218AA IOI Scholarships — Indian Ocean 1988 ICOD provided support enabling four individuals from the Indian Ocean region to participate in the 1988 IOMAC-IOI Training Program in Marine Affairs, held in the autumn of 1988 in Kuala Lumpur, Malaysia. The course was co-sponsored by the IOMAC Secretariat and by the Government of Malaysia through its official training institute, INTA. $50,000; 2 months. Completed.

880232AA Assistance to the Maritime Studies Program — Seychelles Polytechnic As part of a national strategy to link the programs of the Seychelles Polytechnic to the country's training requirements, ICOD provided assistance enabling a team of consultants to identify training requirements for the fishing industry. The consultants also developed an action plan and curriculum to address those needs. $49,110; 3 months. Completed.

880236AA Consultant to IOMAC ICOD funding enabled a Canadian consultant to attend the November 1988 IOMAC Standing Committee and assist IOMAC in the development of a long-term plan for marine-related training. $9,537; 3 weeks. Completed.

890294AA Law of the Sea Course — UFSH, Madagascar In order to provide students at UFSH with basic knowledge of the law of the sea, ICOD provided the services of a professor to teach the subject in Toliara during an intensive two-week course. $12,000; 2 weeks. Completed.

900360AA Technical Support for CNRO's Documentation Service — Madagascar ICOD is providing financial support and technical assistance to improve the accessibility of Madagascar's marine science information. A Canadian consultant will work with the Ministère de la recherche scientifique et technologique pour le développement, the main institution doing applied oceanographic research in the country, in order to improve the methods by which the information in its library is managed and used. The information management skills of the library's personnel will be upgraded, and equipment and other materials will be modernized or purchased. $186,780; 16 months.

Theme: Fisheries Management and Development (DA)

860051DA Economically Important Reef Fish — Maldives On behalf of the Ministry of Fisheries, a number of economically important reef fish in the Maldives have been identified and catalogued. A species identification guide is being developed for use by government inspectors and customs and fisheries officials. $122,150; 3 years.

860094DA Marine Surveillance — Maldives At the request of the Maldivian Ministry of Defence and National Security, the requirements, costs, and national capacity for surveillance of the country's EEZ and for a search and rescue patrols program suitable to Maldivian conditions were assessed. Detailed recommendations and a plan of action for the development and implementation of these programs were prepared. $79,500; 6 months. Completed.

870107DA Establishment of a Fish Quality Control and Inspection System — Seychelles This program was designed to help the Seychelles meet its urgent need for trained fish inspectors. Beginning in January 1988, four Seychellois came to Canada to receive classroom and laboratory training, as well as experience in government and private sector facilities. This was followed by on-site training in the Seychelles. Canadian experts also visited the tuna cannery in Victoria and suggested ways of improving the handling and processing procedures. $99,500; 15 months. Completed.

870174DA Seychelles Fish Poster This project produced a wall poster displaying 44 of the most commonly utilized and commercially important fish species in Seychellois waters. Each species is identified by its Latin, Creole, English, and French names. The posters will be used as part of a national program to increase the general knowledge and awareness of the importance of the fishery. $53,149; 2 years. Completed.

870183DA Fishing Vessel Evaluation — Seychelles ICOD provided the services of a master fisherman and a naval architect to evaluate the performance of four prototypes of artisanal vessels. The consultants also delivered expert advice vis-á-vis modifications to the vessels, gear, and catch methods. Recommendations, when implemented, will facilitate the Seychelles' access to African Development Loan funds with which to modernize the artisanal fleet. $146,300; 1 year. Completed.

880226DA Training in Fish Quality Control and Inspection — Seychelles This project provided four Seychellois government employees with academic and practical training in fish quality control and inspection. Academic training took place at the Newfoundland and Labrador Institute of Fisheries and Marine Technology in St. John's, Newfoundland, and was followed by three weeks of practical training at fish processing plants in New Brunswick. $87,503; 8 months. Completed.

880242DA Tuna Poster — IOMAC IOMAC has initiated several activities promoting regional cooperation on tuna management and development. One of these is a poster of the Indian Ocean tuna and associated migratory species, which IOMAC is producing for regional distribution. ICOD provide funds to cover printing costs. $15,000; 6 months.

880265DA Scholarship Support — Ministry of Fisheries, Maldives In response to a request from the Government of the Maldives, ICOD provided support to enable a fisheries research officer to enter a university program in fisheries population biology and management. $25,000; 1 year. Completed.

890312DA Consultative Meeting for Indian Ocean Producer States This project supported an initial consultative meeting that brought together high-level decision-makers and technicians from the principal tuna-producing nations of the Indian Ocean region. Their purpose was to develop a strategy for collective action, to strengthen negotiation capabilities, to enhance local benefits from tuna fisheries, and to promote a rational regional utilization of resources. $49,750; 2 weeks. Completed.

890330DA Institutional Support to the School of Maritime Studies — Seychelles This project will provide a technical advisor to assist the School of Maritime Studies in the design of a curriculum, the preparation of course outlines, and the identification of teaching support materials and textbooks necessary to implement new diploma and certificate programs. $116,000; 10 months.

890331DA Technical Meeting of Indian Ocean Coastal States for Tuna Management and Development — Indian Ocean Region In November 1989, an initial consultative meeting for Indian Ocean tuna-producing states was held to examine and exchange information pertaining to bilateral and regional activities in the context of fisheries development. This project will support a second meeting of representatives from up to 11 Indian Ocean states to discuss concrete proposals for the establishment of a regional organization for tuna management and development. $79,700; 2 months.

900347DA Strengthening of Fish Inspection and Quality Control in the Seychelles At present, the Veterinary Service of the Ministry of Agriculture and Fisheries is facing growing pressure to certify all fish landings and raise the quality-control standards of fish products. To help meet this demand, ICOD is providing the services of a consultant who will work with a Seychellois counterpart to establish and direct a new Fish Inspection and Quality Control Unit. In addition to technical assistance, short-term in-Canada training will be provided, along with equipment and training materials. $230,000; 2 years.

900351DA Biological and Socioeconomic Studies of the Artisanal and Traditional Fisheries — Madagascar ICOD is providing technical assistance and institutional support to reinforce the capacity of CNRO to design and carry out biological and socioeconomic surveys of Madagascar's economically important artisanal and traditional fisheries. A group of three Canadian experts in the fields of biology and economics will provide CNRO personnel with on-the-job training and short-term attachments. Studies will be targeted at specific species and regions of Madagascar. Equipment and related materials will be provided. Finally, CNRO's participation in selected regional seminars on the artisanal fisheries will be funded. $620,000; 5 years.

900352DA Fisheries Science Education Consultant — Maldives An ICOD-funded consultant will help the Maldivian Ministry of Education incorporate fisheries science into the curriculum at the "O" and "A" levels (grades 11 and 12, respectively; at present, fisheries science is not taught after junior high school). In-service training for instructors to effec-

tively use this new curriculum will also be provided, and the relevant teaching materials will be developed. $74,000; 5 months.

900361DA Fisherwomen's Development through Training and Self-Employment Activities In cooperation with the Worldview International Foundation, ICOD will provide twenty Sri Lankan fisherwomen with training in leadership, community development, and communication. A revolving fund will also be established as a source of initial financing for income-generating activities. The long-term goal of the project is to increase employment opportunities and access to credit for women in the Sri Lankan fisheries sector. $136,000; 3 years.

900373DA Curriculum Development and Fish Marketing Training — Madagascar ICOD is providing financial support for the development of training materials to increase Madagascar's ability to successfully market its fish products. A Canadian consultant will analyze the country's training needs and define the contents of a course to be offered to fisheries students at UFSH and to selected managers from the Department of Fisheries and Aquaculture and the private sector. A Malagasy professor of economics will work in close collaboration with the Canadian consultant to adapt the course for specific training needs and for ultimate incorporation into the fisheries program at UFSH. $134,500; 3 years.

Theme: Mariculture (JA)

870180JA Artemia Salina Workshop — Mauritius In order to help Mauritius develop a production capability for the brine shrimp *Artemia salina*—a feed stock for prawns and other aquaculture products—ICOD provided support enabling a fisheries officer to participate in a one-month production workshop on the species. The workshop was conducted by the South East Asian Fisheries Development Centre in the Philippines. $9,000; 1 month. Completed.

870182JA Production Assistance for Artemia Salina — Mauritius As a follow-up to project 870180, ICOD provided financial support for a consultant to manage the establishment and initial operation of a facility to produce the brine shrimp *Artemia salina*. The resulting indigenous production capability will ensure adequate supply, high quality, and a significant foreign exchange savings. $56,500; 9 months. Completed.

Theme: Coastal Development and Management (KA)

890285KA Establishment of Marine Parks — Mauritius There is general consensus that many of the reefs around Mauritius are degenerating. To preserve the reefs, the Government of Mauritius has approached ICOD for assistance in establishing two marine parks and training future marine park managers and wardens. ICOD will provide a consultant to help establish marine park policy and management procedures, demarcate two marine parks, and train two counterpart members of the Marine Conservation Unit. $105,000; 1 year. On hold.

890336KA Development and Management of the Marine and Coastal Resources of Zanzibar and Tanzania The first phase of this project will assist the Institute of Marine Sciences in Zanzibar to advise the governments of Zanzibar and Tanzania on strategies for the rational use of their marine and coastal resources. Two experts will provide advice and training on the environmental impact and stock assessment techniques. The project will also fund the purchase of training materials and equipment. $156,000; 2 years.

Theme: Nonliving Resource Management and Development (LA)

880210LA Nearshore Non-Fuel Mineral Resources Course — Indian Ocean A two-week course in marine mineral resources exploration will be held in the Indian Ocean region in 1992 for senior geologists and planners from the region. Fifteen participants will be sponsored by ICOD. The course will provide marine geologists from Indian Ocean countries with an overview of the development potential of non-fuel marine mineral resources. This project is intended to facilitate regional cooperation and to advance national capabilities in the exploration and development of marine mineral resources. $155,000; 2 weeks.

880243LA IOMAC-NARA Training Workshop on Offshore Prospecting for Mineral Resources ICOD provided scholarship support for two participants—one from the Seychelles and one from Madagascar—to attend NARA's three-week introductory course in offshore mineral exploration in March 1989. Participants received training relevant to upgrading their countries' capabilities to undertake national offshore mineral prospecting and exploration programs. $17,000; 3 weeks. Completed.

880260LA IOI Scholarships, Ocean Mining — Madras, 1989 ICOD provided scholarship support for three individuals from the Indian Ocean region to attend IOI's 1989 course entitled Class A: Intensive Training Program in Ocean Mining. $13,000; 5 weeks. Completed.

Theme: Marine Environmental Conservation (NA)

860100NA Coastal Sand and Coral Removal — Mauritius: Effects on Lagoon Environment and Marine Life Substantial amounts of sand and coral deposits are removed from Mauritian lagoons and beaches each year for use in the local construction industry. In cooperation with the Government of Mauritius, ICOD consultants assessed the environmental damage and likelihood of resource replenishment and recommended alternative sources of construction materials. $84,000; 3 years. Completed.

870135NA Lagoonal Health Characteristics — Mauritius This project will investigate land-based and other pollution or destructive mechanisms which threaten the lagoonal and coastal environments. A multi-disciplinary team is examining biological, chemical, physical, and public health elements of the project and will deliver follow-up recommendations to appropriate ministries of the Government of Mauritius. $237,600; 5 years.

880200NA Visiting Professor — Marine Resources Studies Unit, University of Mauritius For twelve weeks beginning in January 1989, ICOD provided the services of a visiting professor to the University of Mauritius's Marine Resources Studies Unit (MRSU), established in response to the country's need for specialists in coastal and marine pollution. The professor taught courses in the university's new Bachelor of Science (Hons.) degree program in Environmental Studies and made recommendations regarding the development of the MRSU's programs. $32,085; 12 weeks. Completed.

880240NA Crown of Thorns Starfish Program — Maldives A series of ten-minute programs to be shown in schools and locally owned cinemas will be prepared in both English and Dhivehi, the local language. In addition to providing information on the reef environment and the Crown of Thorns starfish, these programs will follow the progress of the survey assessing the current abundance of this organism and will describe control programs that might be developed. In general, the objective is to encourage participation by the public in the Crown of Thorns Starfish Program. A thirty-minute documentary, intended for a broad audience, will also be produced. $68,000; 2 years.

880247NA Coral Reef Research Unit — Maldives ICOD is helping the Maldivian government establish a Coral Reef Research Unit to monitor and recommend activities aimed at maintaining and protecting the marine ecosystem in the country's atolls. Components of this project include mapping the northeast Male reef, fixing markers for use as reference points when measuring the extent of reef cracking, and establishing baseline data on the status of the marine ecosystem. $266,100; 1 year.

890271NA Assistance for Development of the Marine Environment Component of the National Development Plan — Seychelles In conjunction with assistance provided through UNEP, this project provided assistance for the drafting of the marine environmental component of the Seychelles' National Development Plan. $29,426; 4 weeks. Completed.

890283NA Technical Advisor and Coordinator on Marine Conservation and Management — Mauritius The existing framework for managing the marine environment in Mauritius is not sufficient to control the exploitation of marine resources and protect the marine ecosystems. In January 1989, the Government of Mauritius presented its long-term policies and programs for the environment sector at a donors' meeting on sustainable development and the environment. As a result, the government has requested ICOD assistance with all of the marine environmental aspects of this initiative. ICOD will provide a marine environmentalist to coordinate the marine environmental strategy and subsequent related projects and to help develop the National Marine Environment Management Plan. $276,000; 2 years.

890316NA Protection of the Lagoon: Creation of Channels and Reef Passages around the Islands of Rodrigues — Mauritius In order to help develop the offshore fishing industry of Mauritius, ICOD provided technical assistance to map the most effective and efficient routes for a new channel and new passages in the waters surrounding Rodrigues. $49,750; 6 weeks. Completed.

890317NA Public Awareness Campaign for Indian Ocean Marine Conservation ICOD is providing support enabling the Issue-Based Indian Ocean Network to increase public awareness of the need to protect, manage, and conserve the marine environment of the Indian ocean region, particularly around Kenya, Mauritius, Comoros, Madagascar, and the Seychelles. $48,500; 9 months.

890318NA Marine Pollution Contingency Plan — Seychelles This project helped in the design of a contingency plan to provide first-stage response to oil and chemical spills threatening or already affecting the principal islands of the Seychelles. $35,000; 6 weeks. Completed.

I C O D

West Africa Projects

Theme: Integrated Ocean Management and Development (AA)

860053AA Morocco Marine Science Advisory Mission In collaboration with the IOC, an advisor was sent to Morocco to prepare detailed recommendations for the establishment of a postgraduate marine science program at the University of Mohammed V, and for the development of a research program to study upwelling phenomena in Northwest Africa at the Institut scientifique des pêches maritimes. $11,700; 1 month. Completed.

870145AA Information Brochure — CRODT CRODT conducts several oceanographic research projects in West African countries and maintains a well-supplied resource centre that could provide more services to the region. In order to expand the scope of these services, ICOD has provided support for the preparation and publication of a brochure promoting CRODT's activities and the services it can provide. $11,880; 2 years.

880254AA Training of Francophone Lawyers in Maritime Boundary Delimitation In order to create a nucleus of trained francophone lawyers in the juridical aspects of maritime boundary delimitation, a three-week course was offered in Rabat, Morocco, in May 1990. ICOD underwrote the organization and delivery of the course and sponsored the participation of lawyers from eligible francophone countries. The lawyers were drawn primarily from their governments' boundary delimitation teams. $181,250; 1 year. Completed.

890332AA Regional Consultation on University Studies and Research in the Field of Marine Sciences A regional consultation is being supported on marine-related university studies and research in francophone West African states bordering the Atlantic Ocean. Held under the auspices of the Institut agronomique et vétérinaire Hassan II, it will lead to a subsequent four-day workshop in Rabat, Morocco, at which university research and training programs and needs in the marine sciences will be examined. $86,845; 1 year.

900346AA Cooperative Initiative for Integrated Marine Resources Management in the Archipelago of the Bijagos — Guinea-Bissau This project is designed to strengthen the ability of Guinea-Bissau's public administration, and particularly its Ministry of Fisheries, to undertake integrated marine resources management initiatives on a cooperative basis. In close association with the Centre canadian d'études et de coopération internationale (CECI), ICOD is providing support for the collection of information about the country's fishery resources and the identification of management measures that will ensure the sustainable use of those resources. Training in the management of marine resources will also be provided for technical, professional, and senior government staff. $510,160; 3 years.

900382AA Assistance to Maritime Boundaries Delimitation — Namibia ICOD is providing technical assistance to help Namibia achieve an equitable delimitation of its boundaries consistent with accepted international legal practice. A two-person consultancy team will analyze legal, hydrographic, geographic, and other relevant information bearing on Namibian claims for EEZ boundaries and will advise Namibian authorities on the selection of coordinates delimiting the zone. $57,000; 1 year.

Theme: Fisheries Management and Development (DA)

860054DA Morocco Fisheries Investigation ICOD assistance in the field of fisheries data management was provided for a study on fisheries management and development in Morocco. $9,400; 1 month. Completed.

860055DA Management of Statistics on the Inshore Fishery of Morocco This project involved two Moroccan institutions: the Office national des pêches (ONP) and the Institut scientifique des pêches maritimes (ISPM), which is under the jurisdiction of the ONP. With ICOD assistance, these organizations employed a Canadian statistics specialist to review Morocco's system for gathering data on the inshore fishery. Three software programs enabling the ISPM to improve the gathering and processing of its statistical data and the production of the information necessary for more rational development of the national fisheries are being developed. $205,100; 28 months. Completed.

860060DA Stock Assessment Training — CECAF In response to a request from CECAF, a French-language training course in tropical stock assessment was offered in Senegal in February 1988 to participants from francophone countries in West Africa. The course was developed and delivered by a team of Canadian experts in collaboration with international experts. This group will also produce a French-language manual on tropical stock assessment. (See also project 870140.) $373,000; 2 years.

870140DA Observers to the CECAF Stock Assessment Training Course In cooperation with CECAF, ICOD provided assistance for observers from Mauritius and the Seychelles to attend a course on the assessment of tropical fish stocks (project 860060). The course, held in Senegal in February 1988, was prepared by ICOD in cooperation with CECAF. $24,100; 4 weeks. Completed.

870154DA Fisheries Information Workshop In order to promote the exchange of data and information in support of fisheries management, a workshop was held for the decision-makers, scientists, documentalists, and extension officers responsible for fisheries data and information in ten West African countries. $26,900; 1 year. Completed.

880192DA Computer and Data Analysis Training — Fisheries Research Station, Cameroon ICOD provided support for a Senegalese consultant to train Fisheries Research Station scientists in the use of computerized scientific data relating to fisheries management. $12,000; 1 month.

880216DA Fisheries Statistics and Computer Workshop — CNROP, Mauritania A Canadian consultant provided technical assistance to help upgrade the skills of CNROP's scientific and technical staff in computer-based methods for processing, organizing, and analyzing fisheries statistics and other related data. $34,700; 9 weeks. Completed.

880219DA The World Bank Fisheries Sectoral Mission to Guinea-Bissau As part of a February 1989 World Bank mission to study and report on the prospects of Guinea-Bissau's fisheries sector, ICOD funded a fisheries biologist to provide resource management advice. The consultant reviewed existing fish resource surveys and identified the additional work and resources required in order to establish a resource management program. $22,000; 1 month. Completed.

880231DA Cooperative Development Program between ISSTH and the University of Moncton A cooperative development program between ISSTH and the Shippagan campus of the University of Moncton, in New Brunswick, will be developed and implemented over a three-year period. This program is designed to upgrade and support the professional development of the faculty and curriculum at ISSTH through regular exchanges. Given its internationally recognized academic and research program, the Shippagan campus is well placed to assist the newly created ISSTH and its faculty in their efforts to establish a West African regional fisheries school. $151,300; 3 years. On hold.

880253DA Evaluation of Demersal Fish Stocks CBRST has requested ICOD's assistance in updating and completing its data on the status of the demersal fish stocks of Benin's continental shelf. ICOD provided the Comité national océanographique of CBRST with technical and financial assistance to evaluate the fish stocks and develop management measures specifically for the demersal fisheries. A team of two fisheries biologists—one Moroccan and one Canadian—were responsible for the technical aspects of ICOD's participation. $104,050; 2.5 years. Completed.

880263DA Undergraduate Scholarships for Technicians — Senegal ICOD provided scholarships enabling two technicians from CRODT in Senegal to study in the Fisheries Studies Certificate program at the Shippagan campus of the University of Moncton, in New Brunswick. This certificate program provides a multidisciplinary approach to fisheries. $42,000; 1 year. Completed.

890275DA ISSTH Regional Scholarship Program — Mauritania ICOD is providing four scholarships each year for three years to enable students selected from Benin, Côte d'Ivoire, Mauritania, and Senegal to study at ISSTH, a regional training institution of the West African Economic Community. Programs are offered at the technician and engineering levels. The objective of these scholarships is to strengthen and enhance ISSTH and provide the best students from ICOD-eligible countries with the opportunity to attend the institute. $240,000; 6 years. On hold.

890276DA Fisheries Assessment and Planning — Advanced Short Course for Francophone Fisheries Scientists: Phases I and II ICOD assessed the feasibility of developing an advanced, regional course in fisheries assessment and planning for senior francophone fisheries scientists from West Africa and the Indian Ocean. This three-week, multidisciplinary course will address the problems inherent in conducting fisheries research and planning within the West African socioeconomic context. Phase I: $21,000; 3 months. Phase II: $227,900; 1 year.

890292DA Smoked Fish Development Implemented in coordination with UNIFEM and the Canadian Embassy, this project helped OMSTEP introduce, experiment with, and disseminate an improved fish-smoking technology in the Democratic Republic of Sao Tomé and Principe. A pilot project took place in the village of Neves, and a study tour on fish-smoking technology was offered in various West African countries by the woman responsible for the pilot project and by a food technician from the Department of Agriculture and Fisheries of Sao Tomé. $27,130; 1 year.

890299DA West Africa Subregional Fisheries Commission: Scientific Working Group Meeting — Cape Verde This project provided financial support for the Scientific Working Group of the Subregional Fisheries Commission to meet for ten days in Cape Verde in October 1989. The group coordinated fisheries research activities and recommended measures to promote the rational exploitation and management of fisheries within the West African subregion. $13,000; 10 days. Completed.

890300DA Short-Term Training in Fishing Technology for ISSTH ICOD provided funding for a professor from ISSTH to participate in a short-term training-of-trainers program in Fishing Gear and Technology at the New Brunswick Fisheries School. $15,000; 10 weeks.

890301DA Consolidation of Fisheries Statistical System — Cape Verde This project will provide the services of Canadian consultants to review and recommend measures for improving the fisheries

statistics system currently used in Cape Verde. Training will be provided to all levels of Cape Verde's National Institute for Fisheries Research, including statisticians, researchers, and fisheries officers. Funding for practical training attachments will also be provided to enable a Cape Verdean statistician to spend two months at CRODT and a research biologist to spend two months in a Canadian institute studying fishery assessment and statistics methodology. $207,400; 3 years.

890309DA Formulation of a Fisheries Research Action Plan — Sao Tomé and Principe Two fisheries biologists—one Canadian and one Cameroonian—have assisted the Fisheries Directorate of Sao Tomé and Principe in the formulation of a Fisheries Research Action Plan, designed to support management activities and development programs in the country's fisheries sector. The consultants also met with research institutions in the area and with the Comité régional des pêches du Golfe de Guinée to assess the opportunity for subregional activities. $30,930; 3 weeks. Completed.

900379DA Support for Fisheries Research — Sao Tomé and Principe Technical and financial support is being provided to help the Fisheries Directorate of Sao Tomé and Principe formulate a detailed fisheries research program. A Canadian fisheries biologist will be assigned to the Fisheries Directorate for a three-year period in order to design and implement the program. Two Sao Toméan researchers will participate in practical attachments in neighbouring countries, and two other researchers will be awarded scholarships to study the management and economics of fisheries resources. The existing research facilities will be provided with additional equipment for data analysis and processing. $910,000;5 years.

900381DA Economic Analytical Support — Namibian Fisheries In order to help Namibia rebuild its depleted stocks and manage its recently established 200-mile EEZ, the country's Directorate of Fisheries is being provided with technical assistance and training in the economic sector. A fisheries economist will spend two years at the directorate developing data collection procedures and fisheries management plans, and staff from the directorate will receive training to update their skills. Short-term consultancies will be funded as needs for specialist knowledge arise. $532,000; 3 years.

Theme: Nonliving Resource Management and Development (LA)

870133LA West Africa Offshore Non-Fuel Mineral Course As a follow-up to the Offshore Non-Fuel Mineral Course held in Halifax in March 1987 (project 860028), a bilingual regional training program was designed for 19 geologists drawn primarily from coastal states in West and Central Africa. This two-week course was held in November 1989 in Accra, Ghana, in cooperation with the Ghana State Minerals Commission. Simultaneous translation was provided and course materials were prepared in both English and French. A volume of proceedings summarizing case studies and country profiles is also being prepared in both languages. $173,703; 18 months. Completed.

Theme: Marine Transportation and Ports Management (MA)

860097MA CIDA-WMU Scholarships On behalf of CIDA, ICOD administered scholarships granted to eight African students for study leading to a Master's degree at WMU. Four scholarships were awarded to students from anglophone African countries and four to students from francophone African countries. $300,000; 3 years. Completed.

890293MA Revision of Cameroon's Merchant Marine Code The quarter-century-old Merchant Marine Code of Cameroon was recently revised and partially updated to reflect the evolution of the country's shipping industry and to take account of its new international obligations. To complete this revision and undertake the final draft of a new code, ICOD provided the assistance of a Canadian jurist who specializes in international maritime law and has had extensive experience drafting legislation. $38,240; 9 weeks. Completed.

890341MA Privatization of State Fishing Fleet, Identification of a Program — Guinea In response to a formal request from the World Bank, two Canadian consultants advised Guinea's State Secretariat for Fisheries on measures to be taken in order to initiate the process of privatizing the country's fishing fleet. Particular attention was given to factors that will make the process economically attractive to the private sector. $28,000; 2 weeks. Completed.

Theme: Marine Environmental Conservation (NA)

880198NA Mauritania Documentation and Information Services Assistance — CNROP CNROP was established to conduct the biological, physical, chemical, socioeconomic, and technical research necessary for the development of the marine fisheries and the protection of the marine environment in Mauritania. To date, CNROP's library lacks the resources and capacity to meet the growing need for documentation required to carry out the centre's research programs. This project will enable CNROP to develop its library and information services. $138,600; 18 months.

880239NA Environmental Emergency Measures As part of an effort to protect Mauritania's important EEZ against marine pollution, ICOD provided a consultant to help CNROP prepare and formulate an environmental emergency plan. The ICOD consultant also studied the possibility of international cooperation at the subregional level in order to protect the marine environment. $39,600; 6 months. Completed.

900366NA Environmental Emergency Measures — Professional Enhancement Representatives from Morocco, Mauritania, Senegal, and Cape Verde spent several weeks in Canada studying emergency plans and intervention measures used when accidental marine pollution occurs. Each country sent an expert in the field of marine pollution, as well as a person charged with coordinating relief efforts during marine environmental emergencies. Particular emphasis was placed on those measures applicable to potential accidents in West African waters. $63,540; 3 months. Completed.

Global Projects

Theme: Integrated Ocean Management and Development (AA)

850014AA Marine Affairs Diploma Program A multidisciplinary, one-year diploma program in marine affairs, established at UQAR and at Dalhousie University, commenced in the 1987-88 academic year. The program focuses on the various uses of the oceans and the interrelationships among sectors. Funding has been provided to supplement university financing for the development of this program over six years. An evaluation component has been built into this project. (See also project 860074.) $1,913,417; 8 years.

850015AA WMU Marine Affairs Course: Phase I Assistance was provided to WMU for the design and delivery of a short interdisciplinary training course in marine affairs for students from developing countries studying in the two-year M.Sc. program. Course materials were also provided. The course is now compulsory for all incoming students. (See also project 860069.) $30,000; 1 year. Completed.

850016AA WMU Maritime Law Course A short course in maritime law and accompanying course materials were developed and delivered at WMU. This course is now compulsory for first-year students. $25,000; 2 years. Completed.

850017AA ICOD Scholarships Program 1985-87 Forty-four scholarships and twenty-seven renewals were granted to students from developing countries for postgraduate study in marine-related fields at Canadian universities. This project was later replaced by project 860076. $499,700; 2 years. Completed.

850020AA Marine Affairs Bibliography Two hundred one-year subscriptions to Dalhousie Law School's *Marine Affairs Bibliography* were distributed to selected institutions in developing countries for reference and evaluation. This publication contains references to private and public elements of marine law and to other disciplines in the social and natural sciences relevant to marine affairs. $19,100; 2 years. Completed.

850021AA Ocean Training Directory: Phase I Through this project, information was gathered for a directory identifying marine-related training and education available in Canadian universities, colleges, government departments, and the private sector. (See also project 860063.) $45,000; 6 months. Completed.

850022AA Marine Affairs Materials In conjunction with the Marine Affairs Training Advisory Group (project 860071) and with the ICOD-sponsored Marine Affairs Diploma Program in Canada (project 850014), key background materials are being developed for reference use by students from developing countries. $195,000; 3 years.

860025AA Regional University Scholarships Up to six scholarships are granted annually to students from eligible countries for study at the Master's level in marine-related fields. Three scholarships are granted for study at UWI and three for study at either UPNG or USP. $576,000; 5 years. On hold.

860027AA Sea-Use Planning and Management Training Module An interdisciplinary course and accompanying course materials were designed for second-year students at WMU in order to provide training in the skills and methods required to formulate an EEZ management plan. A simulation exercise was also developed in conjunction with the UN's Ocean Economics and Technology Branch. $49,000; 1 year. Completed.

860059AA SEAPOL Ocean Boundary Training A pilot training course which addressed ocean boundary-making from a legal and policy perspective was developed by SEAPOL and OIC. In June 1987, a team of Canadian and Southeast Asian experts, including an ICOD staff member, delivered the course to participants from Southeast Asia. $92,200; 1 year. Completed.

860063AA Ocean Training Directory: Phase II The information gathered under project 850021 was verified, updated, and published as the *Directory of Marine Training in Canada*. $40,610; 8 months. Completed.

860069AA WMU Marine Affairs Course: Phase II The WMU Marine Affairs course (project 850015) was modified and delivered in November 1986 to the 71 graduating students of WMU who did not participate in the earlier course offered to the first-year class. $16,400; 6 months. Completed.

860070AA Marine Affairs Diploma Materials Assistance is being provided to UQAR and to Dalhousie University for the design and production of curriculum and audio-visual materials required for the effective delivery of the Marine Affairs Diploma Program (project 850014). $475,000; 4 years.

860071AA Marine Affairs Training Advisory Group An international body of experts was convened in March 1987 to review materials developed for the Marine Affairs Diploma Program (project 850014) and to help UQAR and Dalhousie University identify teaching materials in marine affairs (project 860070). Follow-up meetings were convened in May 1988 and February 1989 to further advise the two

universities on their teaching materials and bibliographic databases. $50,000; 4 years.

860074AA Marine Affairs Diploma Scholarships Up to twenty scholarships are granted annually to enable government-nominated candidates from developing countries to pursue the one-year postgraduate Marine Affairs Diploma Program (project 850014). Ten scholarships are available for study at Dalhousie University and ten for study at UQAR. $2,080,000; 5 years.

860078AA Maritime Boundary Delimitation — Erindale College In cooperation with Erindale College of the University of Toronto, a six-week technical course on maritime boundary delimitation was developed and delivered in early 1987 as a pilot course for participants from three Caribbean nations. (See also project 860102.) $35,500; 6 weeks. Completed.

860093AA Boundary Delimitation Computer Program: Phase I Under the technical supervision of the Canadian Hydrographic Service, a set of computer programs for delimiting maritime boundaries with microcomputers was developed. (See also project 870141.) $15,000; 5 months. Completed.

860102AA Maritime Boundary Delimitation — Erindale College The maritime boundary delimitation course developed under project 860078 was delivered with the addition of a seventh week providing hands-on technical training in the hydrographic aspects of boundary delimitation. Funds were provided for six course participants—four from the Caribbean and two from the South Pacific. $48,480; 1 year. Completed.

870123AA Erindale Maritime Boundary Delimitation Course In order to create a nucleus of trained personnel in the technical aspects of maritime boundary delimitation, a seven-week course has been designed in cooperation with the Survey Science Department at Erindale College, University of Toronto. Each year, ICOD sponsors seven hydrographic surveyors from coastal and island states to attend this course. A course manual is also being prepared for publication. $197,500; 3 years.

870127AA WMU Training Modules: Phase II Since May 1986, ICOD has supported the design, development, and delivery of three training modules at WMU: Marine Affairs (projects 850015 and 860069) and its accompanying course materials (project 850022); Maritime Law (project 850016); and Sea-Use Planning and Management (project 860027). The three ICOD courses have been integrated into the two-year teaching program and will be supplemented by in-house lectures and other short courses in order to provide students with a comprehensive overview of the maritime system which they will work within and ultimately administer. $190,000; 3 years.

870141AA Boundary Delimitation Computer Program: Phase II The maritime boundary delimitation software developed under project 860093 was enhanced, and the software and the online tutorial were translated into French and Spanish. $26,000; 6 months. Completed.

870172AA IOI Scholarships — Caribbean 1988 This project provided scholarship support for course participants from Sri Lanka and Comoros to attend the Technology Development and Management training course offered in Cartagena, Colombia, and Kingston, Jamaica, in February and March 1988. $16,170; 1 month. Completed.

870184AA Short-Term Attachments Program This project provides umbrella approval for a variety of candidates (such as students, researchers, and other individuals associated with the institutions and agencies of developing countries) to undertake short study periods or practical attachments in developing countries or in Canada. This arrangement allows ICOD to respond in a flexible and timely manner to specific requests for short-term attachments. $290,000; 3 years.

890270AA Curriculum Development — IMLI This project provided funds enabling an international maritime law expert to attend a curriculum development meeting held at IMLI in Malta. $1,510; 5 days. Completed.

890304AA IOI-IOMAC Course in Marine Affairs A regional course in marine affairs was offered in December 1989 in Cairo, Egypt. ICOD funding enabled four middle-level managers from Indian Ocean countries to participate in the course. $53,553; 10 weeks.

890335AA ICOD Lectureships in Marine Affairs at WMU ICOD will support a series of one-year lectureships enabling up to five Canadian professors to teach marine affairs at WMU. The Canadian professor will deliver seminars providing a broad overview of ocean management issues relevant to developing-country trainees and will coordinate the delivery of WMU's marine affairs and maritime law program. $748,000; 5 years.

900348AA Master of Marine Management (Dalhousie University) and Maîtrise en gestion de l'environnement marin (UQAR) Scholarships Up to fifty-six scholarships will be granted to enable candidates from eligible countries to study at the Master's level at Dalhousie University and at UQAR. A fixed fee will be allocated for each student so that the universities can better handle the day-to-day administration of the scholarships. A built-in evaluation process will enable ICOD and the two universities to monitor activities throughout the course of the project. (See also projects 850014, 860070, and 860074.) $2,229,425; 5 years.

900369AA IOI Class B Courses — Malta 1990, Halifax 1991 ICOD is continuing to provide scholarship assistance enabling ocean managers to attend marine affairs courses offered by IOI. "Class B 1990: The Exclusive Economic Zone" was held in Malta in late 1990 and will be offered in Halifax during the summer of 1991. The ten-week course addresses a broad range of marine affairs issues relevant to managing and developing the ocean resources within EEZs. $85,000; 1 year.

900380AA Marine Training Directory In order to promote the collection and dissemination of information about training opportunities in Canada's marine sector, ICOD is producing an updated version of its *Directory of Marine Training Programs in Canada*, first published in 1986 (see projects 850021 and 860063). The directory will be available in whole or in part in printed form or on diskette in CDS/ISIS format. $49,300; 5 months.

900388AA Women and Fisheries Companion Video In 1990, ICOD contracted CCIFTD to design and produce four case studies (one for each of ICOD's target regions) on women and the fisheries, for use in gender and development training. To increase the usefulness of the materials, ICOD has asked CCIFTD to develop a twenty-minute companion video based on the case study of the St. Vincent and the Grenadines Fishery Development Project. $28,000; 3 months.

Theme: Fisheries Management and Development (DA)

860023DA World Fisheries Map In cooperation with the World Food Day Association and with World Food Day 1986, a map of world fisheries resources was prepared in French and English in order to demonstrate the role of fisheries in the global economy. $69,800; 1 year. Completed.

860092DA Indian Ocean-South Pacific Exchange As part of a program to enhance the cross-regional exchange of information and experience, funding was provided to enable a representative from the Seychelles Government to attend the Surveillance Workshop held in Honiara in November 1986. $4,800; 1 month. Completed.

860103DA Séminaire sur l'organisation de la gestion des cooperatives de pêche Nine scholarships were provided for the Seminaire sur l'organisation de la gestion des cooperatives de pêche, held at the Shippagan campus of the University of Moncton, in New Brunswick. The course was designed for middle-level managers and fishermen from fishing cooperatives, and participants were selected from francophone countries in West and East Africa. $46,890; 1 month. Completed.

880220DA OECS and Seychelles Participants — FFA Regional Surveillance Officers' Meeting As a component of project 850011, ICOD supports an annual regional review meeting of surveillance officers from FFA member states. This project provided funds enabling participants from the Caribbean and the South and West Indian Ocean to attend the October 1988 meeting, held in Rarotonga, Cook Islands. $16,000; 10 days. Completed.

Theme: Nonliving Resource Management and Development (LA)

860028LA Offshore Non-Fuel Mineral Course — Halifax In cooperation with experts from Canada's Department of Energy, Mines and Resources, ICOD developed a two-week course in offshore non-fuel mineral resource assessment and planning which was offered in March 1987 to senior-level geologists from eleven developing countries. Eight participants were sponsored by ICOD and three by CIDA. $45,000; 1 year. Completed.

880233LA IMLI Scholarships ICOD will sponsor four women each year for three years to attend IMLI in Malta. In keeping with ICOD's commitment to further the role of women in developing countries, ICOD's scholarships are directed to female candidates. IMLI has reserved fifty percent of the places in each course for qualified women, and eligible countries will be invited to nominate one candidate each year. Scholarship recipients will be selected in consultation with IMLI. $250,000; 3 years.

Theme: Marine Transportation and Ports Management (MA)

850019MA ICOD-WMU Scholarships Two scholarships are granted annually to candidates from developing countries for study leading to a Master's degree at WMU. An additional scholarship was granted in 1989-90, bringing the total number of scholarships under this project to eleven. $403,200; 5 years.

860030MA Research Vessel Operation In cooperation with FAO and IOC, a multi-authored manual, associated training materials, and regional workshops are being prepared on research vessel operation and management in order to maximize the use and benefit of research vessels in developing countries. ICOD is providing direct coordination for this program. $434,100; 3 years.

870167MA CIDA-WMU Global Scholarships: Phase I On behalf of CIDA, ICOD administers scholarships granted to eight students from developing coastal countries for study leading to a Master's degree at WMU. $350,000; 3 years.

900350MA WMU Scholarships 1991-95 Up to thirty scholarships (six each year for five years) will be granted to enable candidates from eligible countries to attend WMU and study management and marine affairs planning in the ports, marine transportation, and shipping sectors. The two-year program leads to a Master of Science degree. $1,230,000; 5 years.

Theme: Marine Environmental Conservation (NA)

850018NA IOI Scholarships — Halifax Course Up to four awards are granted annually to enable participants from eligible countries to attend IOI's Summer Training Program in the Management and Conservation of Marine Resources: The Exclusive Economic Zone. (See Indian Ocean project 860081.) $208,100; 5 years.

860076NA ICOD Scholarship Program Up to twenty scholarships were granted annually to enable candidates from eligible countries to study at the Master's level in marine-related fields. Scholarships were tenable at Canadian universities. $3,796,047; 4 years. Completed.

880262NA CIDA-WMU Global Scholarships: Phase II As an extension of project 870167, ICOD is administering an additional twelve CIDA-funded scholarships, granted to students from developing countries for study leading to a Master's degree at WMU. $626,000; 3 years.

The International Centre for Ocean Development was established as a federal crown corporation in February 1985 with a mandate to initiate, encourage, and support cooperation between Canada and developing countries in the field of ocean resource development. Under the guidance of a fourteen-member board of directors, including four international members, ICOD initiates and supports programs for the development of indigenous expertise and institutions in developing countries for the improved management and utilization of ocean resources, particularly as a source of food. Programs are carried out by enlisting individual and institutional expertise in Canada, developing countries, and elsewhere, and by developing and sponsoring the collection and dissemination of information, training programs, technical assistance, advisory services, and research relating to ocean resource development.

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